



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|-------------------------|---------------------|------------------|
| 09/318,692 | 05/25/1999 | SUBAN G. KRISHNAMOORTHY | PD98-2385 | 1777 |

22879 7590 01/12/2004

HEWLETT PACKARD COMPANY
P O BOX 272400, 3404 E. HARMONY ROAD
INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER

CHOUDHARY, ANITA

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2153

DATE MAILED: 01/12/2004

16

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/318,692

Applicant(s)

KRISHNAMOORTHY ET AL.

Examiner

Anita Choudhary

Art Unit

2153

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

Art Unit: 2153

DETAILED ACTION

Response to Amendment

The amendment filed October 15, 2003 has been entered. Claims 1 and 32 have been amended and are presented for further examination.

Claims 1-34 are presented.

Response to Arguments

Applicant's arguments with respect to claim 1-34 have been considered but are moot in view of the new ground(s) of rejection. Ohara (US 6,438,643) shows a system for obtaining data information about each device (e.g. printers). The data information includes the length of various field segments specific to each device (see fig. 7, col. 16 lines 49-65).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 15-19, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morris (US 6,353,848) in view of Hayes et al. (US 6,105,066) in further view of Ault et al. (US 6,377,994) and Ohara et al. (US 6,438,643).

Morris shows substantial features of the claimed invention, it discloses a system and method for accessing remote storage device, including:

- Registering a storage device (camera) upon instantiation and an agent (executable program) on a server (col. 11 lines 16-25) for direct communication with remote storage device (camera) (col. 6 line 58- col. 7 line 4, col. 7 lines 19-26; col. 11 lines 5-24).
- An applet on the client to provide user interface (web browser) for managing and obtaining information from storage devices over network (col. 10 lines 54- col. 11 line 4).

Although Morris shows substantial features of the claimed invention, Morris does not explicitly show an applet manager and an agent manager. Nonetheless these features are well known in the art and would have been an obvious modification to Morris as evidenced by Hayes.

In an analogous art, Hayes shows a system for client accessing data in storage through a managing servlet. Hayes discloses:

- An applet manager (profile manager) operating on the client invoking and communicating with an applet (col. 7 lines 13-23, 32-39).
- An agent manger (Profile Management Servlet) operating on the server for managing and keeping access control list to track and manage users access to applications (col. 8 lines 32-55).

Given the features disclosed by Hayes, a person of ordinary skill in the art would have readily recognized the advantages and desirability of modifying the system disclosed by Morris

Art Unit: 2153

with a agent manager and applet manager, as disclosed by Hayes, in order to have a central application for managing client and server requests.

Although Morris in view of Hayes show substantial features of the claimed invention they do not show authenticating requests from clients to establish communications with agent. Nonetheless this feature is well known in the art, and would have been an obvious modification to the system disclosed by Morris in view of Hayes as evidenced by Ault.

In an analogous art Ault shows a system for controlling access to server and server access to resources in a client/server system. Ault discloses:

- A server receiving a request to establish a communications link with a resource (agent) (col. 2 lines 62-67).
- Authentication of a client upon request for communication (col. 3 lines 37-54).
- Passing connection information to the authenticated client to enable the client to establish communication connection with a resource on the server (col. 5 lines 63- col. 6 lines 18).

Given this feature, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system disclosed by Morris in view of Hayes by employing the features shown by Ault in order to provide a secure communication between trusted client and servers (see Ault col. 1 lines 31-52).

Although the combined teachings of Morris in view of Hayes and Ault shows substantial features of the claimed invention, as discussed above, they do not disclose the transmission of fixed length packets determined by the device. Nonetheless, this feature is well known in the art

Art Unit: 2153

and would have been an obvious modification of to the system shown by Morris, Hayes and Ault, as evidenced by Ohara.

In an analogous art, Ohara shows a system for a Master system (fig. 1, G) for transmitting data to a device (e.g. printer) over a network. Data is transmitted to a device according to the device information of each remote device. Included in the device information are indicators for fixed length file segments of each selected device (fig. 7, 111-116, col. 16 lines 49-65).

Given this feature, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system shown by Morris, Hayes and Ault to employ the feature shown by Ohara, in order to transmit customized data to a known specific device (col. 10 lines 19-37).

In referring to claim 15, Morris shows a camera (storage device) register with the executable program (agent) (col. 11 lines 41-51). Morris does not show the storage device register with agent manager; nonetheless this would have been an obvious modification to the system disclosed by Morris, as evidenced by Hayes. Hayes shows the Profile Management Servlet that maintains an access control list for managing registered groups in storage (col. 9 lines 1-10). Given the feature disclosed by Hayes, a person of ordinary skill in the art would have readily recognized the advantages to having an agent manger register storage agents in order to have all agents registered at a central location to increase manageability efficiency.

In referring to claim 16, Morris shows network communications through a port (col. 8 lines 9-11).

In referring to claim 17, Morris shows applet communicating with agent, Morris does not show agent manager, nonetheless as shown above an agent manger would have been an obvious

Art Unit: 2153

modification to Morris as shown by Hayes. Hayes shows applet communicating with agent manager to gain access to storage (col. 7 and 8).

In referring to claim 18 and 19, Hayes Jr., shows a set of modules setting display and network properties for client (col. 7 lines 32-63).

In referring to claim 22, Hayes shows profile manger (applet manger) receiving information at the applet manger (fig. 8 802,804).

In referring to claim 23, Hayes shows client applet providing identification information to Profile Management servlet (agent manager) for authentication (fig. 7 704-708).

II. Claim 2-14, 20,21 and 24-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morris and Hayes in view of Ault and Ohara as applied to claim 1 above, and further in view of Fichtner et al.

Although the combined teachings of Morris and Hayes in view of Ault shows substantial features of the claimed invention, as discussed above, it fails to disclose a firmware file being transferred from the applet to the agent through the network. Nonetheless, this feature is well known in the art and would have been an obvious modifications of the system disclosed by Morris and Hayes in view of Ault as evidenced by both Ohara and Fichtner.

Ohara shows a system for transferring firmware over a network to a device (col. 17 lines 22-41). In addition, in an art very analogous to Morris, Fichtner et al. also shows an *automatic* firmware update for a camera having:

- A firmware file transferred from a host system to a storage device (col. 6 lines 20-28).

Art Unit: 2153

Given the teachings of Fichtner et al., a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying Morris and Hayes Jr. in view of Ault and Ohara, by employing the well known or conventional features of a firmware file, such as disclosed by Fichtner et al., in order for a remote storage device to *automatically* receive via network the most up to date hardware and communications configurations (see Fichtner, col. 1 lines 38-43).

In referring to claim 3, 13, and 14, Fichtner et al., show the firmware file having firmware with various data headers (col. 8 lines 38-45).

In referring to claim 4 and 5, Fichtner et al. shows downloading of firmware on to storage device (col. 6 lines 22-25).

In referring to claim 6, Fichtner et al shows a data corresponding to version of firmware (col. 8 lines 38-65).

In referring to claim 7, Fichtner et al. shows an interface identifier of the storage device type (col. 8 lines 38-65).

In referring to claim 8, Hayes Jr. shows a password being sent from client to server (col. 13 lines 10-24).

In referring to claim 9, Morris shows an agent (executable program) with the three layer functionalities including communications with a storage device (col. 11 lines 16-20), data corresponding to object of storage device (col. 11 lines 41-44; col. 22 line 65-col. 23 line 4), and command data for controlling the operation of storage device (col. 23 lines 49-65).

In referring to claim 10 and 11 Morris shows the agent (executable program) communicating with network (col. 11 lines 16-20).

Art Unit: 2153

In referring to claim 12, Morris shows the agent (executable program) adapted to support more than one command set (col. 23 lines 55-65).

In referring to claim 20 and 21, Morris shows objects representation of the storage device instantiated in the client (col. 9 lines 14-28).

In referring to claim 24, Fichtner et al. shows a polling of agents (storage devices) to determine if they are connected to the network (col. 3 lines 17-23).

In referring to claim 25, Hayes Jr. shows a server maintaining database for managing applet access permissions (col. 8 lines 32-38).

In referring to claim 26 and 27, Hayes shows applet accessing data about storage by generating request to agent manager (fig. 7 718).

In referring to claim 28, Hayes shows security between applet manager and agent manger (col. 13 lines 10-24).

In referring to claim 29 and 30 Morris shows a status signal being sent to client (col. 9 lines 24-29).

In referring to claim 31, Morris shows agent adapted to multiple storage devices (col. 14 lines 12-30).

III. Claim 32-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morris and Hayes in further view of Fichtner and Ault and in further view of Ohara et al (US 6,438,643).

Although the system disclosed by Morris shows substantial features of the claimed invention including a system for allowing client access to storage device using an agent. The

Art Unit: 2153

executable program (agent) is representative of the storage device and allows client access into the storage device. Morris shows a system including:

- Instantiating an agent (executable program) on a server (col. 11 lines 16-25).
- A client/server network for transferring commands/ files from client to server (col. 12 line 60 – col. 13 line 3).
- Instructing an agent (executable program) on server to download commands/ files to a storage device (col. 13 lines 5-19).

Although Morris shows substantial features of the claimed invention, Morris does not explicitly show an agent manager. Nonetheless these features are well known in the art and would have been an obvious modification to Morris as evidenced by Hayes.

In an analogous art, Hayes shows a system for client accessing data in storage through a managing servlet. Hayes discloses:

- An agent manger (Profile Management Servlet) operating on the server for managing and keeping access control list to track and manage users access to applications (col. 8 lines 32-55).

Given the features disclosed by Hayes, a person of ordinary skill in the art would have readily recognized the advantages and desirability of modifying the system disclosed by Morris with a agent manager and applet manager, as disclosed by Hayes, in order to have a central application for managing client and server requests.

The system disclosed by Morris in view of Hayes shows files being downloaded through agent to storage device but fails to disclose a firmware file being created and downloaded through agent to storage device. Nonetheless, this feature is well known in the art and would

Art Unit: 2153

have been and obvious modification of the system disclosed by Morris, as evidenced by Fichtner et al.

In an analogous art, Fichtner et al. shows a system with automatic firmware update having:

- Storage device receiving a request from the client to download firmware to at least one storage device (camera) (col. 9 lines 7-22).
- Creating, at a system computer (col. 2 lines 46-55), a firmware file including data headers for transfer in to a storage device (col. 8 line 65 – col. 9 line 25).

Given the teachings of Fichtner et al., a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Morris by employing the well known or conventional features of a firmware file, such as disclosed by Fichtner et al., in order for a client to manage and update storage devices remotely located on a server.

Although the combined teachings of Morris and Hayes in view of Fichtner show substantial features of the claimed invention, as discussed above, it fails to disclose authenticating the client at the agent manager. Nonetheless, this feature is well known in the art and would have been an obvious modification to the system disclosed by Morris, Hayes and Fichtner as disclosed by Ault.

In an analogous art Ault shows a system for controlling server access to resources in a client server system. The method including:

- Authenticating the client at application server (col. 2 lines 17-20, col. 3 lines 37-54).

Art Unit: 2153

- Passing connection information to the authenticated client to enable the client to establish communication connection with a resource on the server (col. 5 lines 63- col. 6 lines 18).

Given this feature, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system disclosed by Morris, Hayes and Fichtner by employing the features shown by Ault in order to provide a secure communication between trusted client and servers (see Ault col. 1 lines 31-52).

Although the combined teachings of Morris and Hayes and Fichtner in view of Ault shows substantial features of the claimed invention, as discussed above, they fails to disclose list of devices for receiving firmware file. Nonetheless, this feature is well known in the art and would have been an obvious modification to the system disclosed by Morris, Hayes, Fichtner and Ault as evidenced by Ohara.

In an analogous art, Ohara shows a system for a communications system for updating programming programs (firmware). Ohara discloses a method for:

- Generating a list of one or more devices for receiving a firmware file (col. 17 line 46 col. 18 line 34).
- Determining whether the device on the list is updateable (col. 21 line 23-42).
- Transferring selected firmware file to specified device (col. 18 line 35- col. 21 line 67).
- Data is transmitted to a device according to the device information of each remote device. Included in the device information are indicators for fixed length file segments of each selected device (fig. 7, 111-116, col. 16 lines 49-65).

Art Unit: 2153

Given the teaching of Ohara, a person of ordinary skill in the art would have readily recognized the advantages of modifying Morris, Hayes, Fichtner and Ault, by generating a list for managing firmware transfers, as disclosed by Ohara, in order to provide administrator with user friendly interface for carrying out program upgrades more efficiently and quickly.

In referring to claim 33, Fichtner et al. shows firmware file data corresponding to version and identifications of storage device type (col. 8 lines 38-65).

In referring to claim 34, Morris shows a data corresponding to password for access to managing storage device (col. 12 lines 39-51).

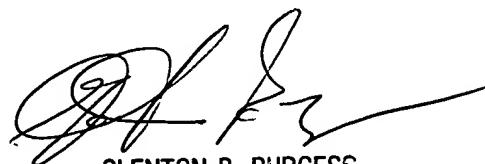
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anita Choudhary whose telephone number is (703) 305-5268. The examiner can normally be reached on 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (703) 305-4792. The fax phone number for the organization where this application or proceeding is assigned is (703) 746-7239.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

AC
January 7, 2003


GLENTON B. BURGESS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100